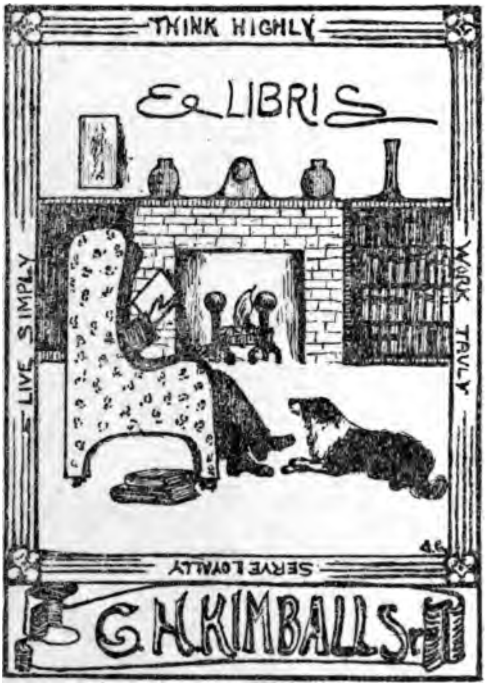

This book was donated by the family of the late George H. Kimball Sr., through the Oakland County Engineering Society, to the University of Michigan for the furtherance of Engineering Education.

Pontiac, Michigan December, 1936

ECONOMICS FOR EXECUTIVES

A SERIES OF TWENTY-FOUR READING TEXTS WHICH CONSTITUTE AN INTERPRETATION OF THE UNDERLYING PRINCIPLES OF ECONOMICS AND BUSINESS FOR MEN AND WOMEN IN PRACTICAL LIFE

EDITED BY

GEORGE E. ROBERTS

AMERICAN CHAMBER OF ECONOMICS
INCORPORATED
NEW YORK

READING TEXT XII—ECONOMICS FOR EXECUTIVES

MONEY AND THE MONETARY SYSTEM

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CONTENTS

Money and the Monetary System

I

The Economic Functions of Money

AN economic study of the money question does not deal with the art of earning money or with ways of spending it, but with the nature and functions of money, with the organization and operation of the monetary system, and with the effects of changes in that system upon the relations of buyers and sellers, employers and employees, borrowers and lenders. We have seen in the studies of prices that these relations are fundamentally dependent upon the price system, and nothing does so much to prevent that system from doing its proper work as some defect or disorder in the monetary system.

Recent Developments

Recent financial developments on the continent of Europe have given fresh emphasis to the money question. With the printing presses of Germany and other states running

overtime to provide funds for paying government expenses, prices have risen because of the increased amount of money in circulation and many relationships have been violently disturbed. Wage-earners complain that wages have not kept pace with prices. People with incomes fixed in terms of money have been seriously affected. Our own trade with all these countries has been handicapped by the uncertain value of their money, and the consequent uncertainty of all business relations with them.

Even our own monetary system, sound as it is, is not so perfect as to be wholly free from criticism or so well understood as to be safe against ignorant attack. A country's monetary system is a factor of fundamental importance in its economic and social life, many controversies arise in regard to it, and in order to understand them, it is necessary to have knowledge of the principles of monetary science which have been accepted and made the basis of the monetary systems of the principal countries of the world.

Money a Medium of Exchange

People are accustomed to use the term "money" in a loose way, as if it included credit, or as if it were merely one sort of commodity, like wheat, but for scientific purposes the term requires more precise defini-

tion. Money is technically defined as *something which is specially designed for use as a medium of exchange and specially devoted to serving this purpose.*

A medium means a go-between, and money is used as a medium of exchange when goods and services are transferred from one owner to another, not directly, as when one horse is traded for another, but indirectly, as when a farmer sells wheat for money and uses the money to buy something else. The direct methods of exchange which prevailed before people learned how to use money were known as *barter.*

The Limitations of Barter

Barter has very obvious economic limitations. Consider, for instance, the plight of the shoemaker under such a system. He can have meat for his dinner only when he can find a butcher who will exchange meat directly for shoes. If he needs pins, he can buy them only in lots of thousands, because he cannot subdivide a pair of shoes. He cannot readily produce his goods in quantity, because the more he produces the larger will be his marketing problems. In fact, a man can scarcely become exclusively a shoemaker in a community which makes no use of money, nor can there be any other sort of specialist.

A medium of exchange is necessary in

order that specialization may be possible. We have had occasion to note in the preceding study-units that society is now minutely specialized and that this specialization is the main secret of the productivity of modern industry. Industrial development rests on the exchange of products, and without the use of money as a medium of exchange this system with its resulting benefits to the whole of organized society would be quite impossible.

Commodity Money

The earliest media of exchange were not specially designed to serve the purpose. They consisted of certain commodities of very common use, for which, on that account, people found it expedient to trade other commodities not so frequently in demand. Cattle, salt, and tobacco are among the commodities which have been so used at one time or another.

As trade developed, evolution naturally occurred in the media of exchange. The traders exercised keen judgment as to the commodities best suited for their purposes. Some goods were too bulky to be readily transported; some were perishable; many could not be obtained in units of uniform size or quality, a condition which is necessary for price quotations.

As transactions grew in volume, the rela-

tion of value to bulk evidently became an important consideration. At the dawn of history the metals had won a preference, and the process of evolution has proceeded until in comparatively recent years the preference has been decidedly fixed upon gold as the medium for effecting final settlements.

Besides serving as a medium of exchange, and almost entirely in consequence thereof, money has come to perform two other important functions. It serves as a standard medium for loans and as a measure of commercial values. We shall examine briefly these two purposes.

A Standard Medium for Loans

There is some lending, to be sure, without the use of money, as when one farmer lends a mowing-machine to another, or when a stock broker borrows stocks to be returned again to the lender; in modern times, however, almost all loans are made in money, or in terms of money, and are repaid in the same way. This practice affords to society the same sort of advantages as does the use of money as a medium of exchange, but it does so in even higher degree.

If there were no such thing as money, how could a railroad company, for example, manage to find somebody who would *lend* to it for a period of years the use of actual railroad

equipment, such as roadbed, tracks, and rolling stock, in return for a small amount of transportation supplied to the lender every year? How could arrangements be made for the repayment in railroad equipment of the loan originally made in the form of railroad equipment? These questions need merely to be put, in order to show that money is indispensable to modern life. The roundabout method of production, upon which we have already laid emphasis, would be next to impossible unless the world had come to carry on its capital transactions in monetary terms.

A Measure of Commercial Values

The use of money for measuring commercial values arose naturally out of its function as a medium of exchange, for the quoting of prices in money and the measuring of commercial values in money are essentially the same thing. When the markets are registering price quotations of all the various commodities and services, it is evident that the ratios at which commodities exchange for one another can be calculated by comparing their respective prices. After the explanation of the organizing functions of prices that has been given in preceding study-units, we can readily see that the use of money for the quoting of prices has become an even more important function than its use as a medium

of exchange. It serves this price-making purpose in hundreds of cases where no money actually passes from hand to hand.

The importance of this consideration can be illustrated by again referring to the condition of a shoemaker under a system of barter. How can he count on any such thing as a *market price* for his shoes? Shoes would have to be quoted in leather, in pins, in meat, and in dozens of other commodities, which means in substance that no price quotations are possible at all, and consequently there can be no organized markets. How can a producer plan ahead, forecast sales, schedule production, or even keep accounts, under such conditions? The advantages of the price system which we have discussed in earlier study-units would be almost wholly wanting, and production would be limited by the lack of facilities for effecting the exchanges.

The Functions Summarized

Money, to sum up, serves first of all as a medium of exchange. In consequence, it comes to be used for negotiating loans and quoting prices. The whole system of modern industry, with its minute specialization and its well-organized markets, has been made possible by the use of money. The system can work well only when the monetary system is working well.

II

Organization of the Monetary System

We have now to consider what is meant by the monetary system as distinguished from money itself. The difference between the two is much like that between the instruments used in a telephone system, on the one hand, and the telephone system as a whole, on the other. Just as most of the telephone system is out of sight, so also is most of the monetary system out of sight. It consists of a number of different parts. What are these parts? How are they related to one another, and how is the system regulated as a whole?

Where Mistaken Proposals Originate

A lack of adequate understanding of these questions is the chief source of subversive proposals. Men who see paper money passing readily from hand to hand, for example, often jump to the erroneous conclusion that we might do without all other kinds of money. They do not appreciate that paper money has no significance in itself and serves its purpose only because of its relation to other forms of money. Again, in one of the most famous of American political campaigns, that

of 1896, it was suggested that we make a certain change in our monetary system "without waiting for the aid or consent of any other nation." Those who supported this view did not appreciate that the monetary system of one country is in reality part of an international system, and that this country is as much concerned as any other in maintaining an international system. The result of the election at that time committed the country to the continued maintenance of the "gold standard," but there are still many people who have only a faint understanding of what the gold standard comprehends. They are consequently quite at sea when they hear the statement that a chief source of the present international disorder is the failure to maintain the gold standard. Only an intelligent appreciation of the part played by gold in the monetary systems of the world enables anyone to obtain his bearings in this situation.

A Monetary System

The monetary systems of all leading countries are essentially alike, so that an analytical description of the monetary system of the United States will bring out the essential elements of all of them. Our own monetary system has four principal features, which are as follows:

1. A monetary unit, as one dollar.
2. A monetary standard, as 23.22 grains of gold.
3. Standard money, as gold coin.
4. Subsidiary money, as silver coins and bank notes.

We shall consider these in turn, giving special attention to the monetary standard.

The Dollar as a Monetary Unit

The "dollar" is our monetary unit because it is the unit used to measure quantities of money and, in consequence, quantities of "money value," as possessed by other things. The term "dollar," therefore, is not merely the name of a coin, but also the name of a unit of measurement. It derives its significance as a unit of measurement from the fact that our monetary law, in prescribing the conditions for minting coins, declares that the name, "one dollar," shall apply to a coin consisting of 25.8 grains of gold, nine-tenths fine. This means that the coin contains 23.22 grains of pure gold and 2.58 grains of alloy, chiefly copper, added to harden the coin and make it stand wear. In actual practice the gold dollar is no longer coined, because it proved to be too small for convenient use, but other gold coins, such as the gold eagle, or $10 piece, are of proportionate weight and the same fineness.

The pound sterling, which is the unit of the English monetary system, takes its meaning as a monetary unit from the fact that the English law requires the coin to consist of 123.27 grains of gold, eleven-twelfths fine. Its pure gold content is usually stated at 113 grains.

Starting with the units described above, any quantity of money, and consequently any amount of "money value," can be measured in dollars or in pounds.

The Value of the Dollar

In defining the monetary unit we have already given an example of a monetary standard, as 25.8 grains of gold, nine-tenths fine. The monetary standard is technically defined as *that thing the value of which fixes the value of the monetary unit*, and it commonly consists of "a certain quantity of a certain quality of some particular metal."

These statements should be carefully understood. Arrangements presently to be described insure that the American dollar, in whatever form of money it appears, will always have the same value or purchasing power as 23.22 grains of fine gold, and in this sense these arrangements "fix" its value. This does not mean that the value of the dollar, in the sense of its purchasing power, is unchanging. It means only that the term

"dollar" always is definitely related to the amount of gold specified.

Does the Value Vary?

Some people think erroneously that the monetary standard never varies in value, just as the standard unit of long measure, the yard, never varies in length. These people assume that since the government undertakes to pay one dollar for every 23.22 grains of fine gold presented at the mint, the value of gold is thus made invariable by law. They overlook the fact that the government only gives a coined dollar for the material with which to make another dollar. The government merely certifies by its stamp to the contents of the piece and gives it a name. If a person enters into a contract to pay a certain number of dollars, these are the dollars referred to, but the government does not undertake to say what they will buy. The purchasing power of these pieces, or their value in terms of other commodities, is determined in the public markets.

If we keep in mind the fact that the commercial value of anything depends upon what one can exchange it for, it is obvious that the value of the "dollar" varies like the value of commodities. If wheat rises from $1 per bushel to $2 per bushel, it is apparent that in so far as the miner of gold needs wheat,

his gold has fallen in value by one-half. He will need twice as much gold to buy a bushel of wheat, whether his gold be coined or uncoined. Moreover, the relations between "dollars" and wheat are affected by the amount of "dollars" in the markets, as well as by the amount of wheat in the markets. The holder of gold "dollars," therefore, can be sure of obtaining no certain and fixed quantity of anything from time to time in exchange for his money, because the relations between money and commodities are changing constantly. All market values are relative. In periods of high prices, gold is cheap, the monetary standard is cheap, and money is cheap. In periods of low prices the contrary is the case.

The Gold Standard

The value of the dollar and the value of a certain quantity of gold are tied together by the use of three official arrangements, all three of which are indispensable.

First, gold, and gold only, is coined in unlimited amounts when presented at the mint (free coinage).

Second, there is no prohibition on the melting of gold coins (free melting).

Third, gold money and gold money only, with exceptions to be noted, is "full and unlimited legal tender."

Gold is made into coin in unlimited quantities for anyone who presents it at the mint. The purpose of this arrangement, which is called "free coinage," is to insure that the value of the gold-coin dollar and the value of the same amount of gold uncoined may be kept constantly equivalent. The purpose of imposing no restrictions on the melting of gold coins, a condition called "free melting," is also to insure that the values of the coin and of the bullion will be kept together. Obviously the value of a gold coin weighing 25.8 grains and of the same quantity of uncoined gold, or gold bullion, cannot be different when either one can be easily changed into the other.

The third arrangement necessary to the maintenance of the gold standard is that gold money, and gold money only, with exceptions to be noted, is "full and unlimited legal tender." But before explaining this condition we should make clear why the gold standard cannot be maintained unless the privilege of free coinage is not only conferred upon gold but denied to all other metals.

"Bimetallism"

This restriction upon the coinage of other metals, notably silver, did not come about in the United States all at once, mainly because our people did not come suddenly to the

adoption of the single gold standard or to an understanding of the need for restricting the coinage of silver in order to maintain the gold standard.

The intention of the original coinage act of 1792 was to establish the monetary unit in *both* gold and silver, a condition called "bimetallism." But experience demonstrated the impossibility of maintaining gold and silver coins in circulation at the same time under free coinage for both metals. The market ratio for gold and silver bullion, that is, the ratio at which the uncoined metals will exchange, fluctuates with changes in their relative production and in the demand for them. The effect is to cause the more highly valued metal, whichever it may be, to be withheld from the mint, and the outstanding coins of that metal to be hoarded or retired.

Gresham's Law

The principle thus illustrated is known as Gresham's Law, according to which two metals will not circulate as money side by side if the coins of equal nominal value are unequal in real value; the cheaper money is said to "drive" the dearer out of circulation, experience having shown that people will pay out the cheaper and retain the more valuable. The principle was enunciated by Sir Thomas Gresham, Chancellor of the

British Exchequer in the time of Queen Elizabeth, in a recommendation for monetary reform.

Results of Investigations

When our coinage system was established in 1792 the ratio adopted for the free coinage of both metals was 15 to 1; that is to say, 15 ounces of silver was treated as the equivalent of 1 ounce of gold. Under this arrangement gold proved to be undervalued, and consequently did not circulate. The standard money of the country, in fact, thus became silver money. The situation was the subject of an exhaustive inquiry and discussion for several years following 1830. Albert Gallatin, who had been Secretary of the Treasury and was one of the most eminent financiers in the country, was asked by Mr. Ingham, then Secretary of the Treasury, to write a report upon the subject, and did so. In that report he said:

> "The present rate was the result of information, clearly incorrect, respecting the then relative value of gold and silver in Europe, which was represented as being at the rate of less than 15 to 1, when it was in fact from 15.5 to 15.6 to 1. It would be better, at all events, to discontinue altogether the coining of gold than to continue the present system."

In 1831, a Select Committee on Coins,

of the House of Representatives, submitted a report, in which it took a stand for a single standard of value, for the reason summed up as follows:

> "That there are inherent and incurable defects in the system which regulates the standard of value in both gold and silver; its instability as a measure of contracts, and mutability as the practical currency of a particular nation, are serious imperfections; whilst the impossibility of maintaining both metals in concurrent, simultaneous, or promiscuous circulation appears to be clearly ascertained. That the standard being fixed in one metal is the nearest approach to invariableness, and precludes the necessity of further legislative interference."

This committee seems to have favored fixing the standard definitely in silver, as the existing standard, but agitation continued for action that would bring gold into larger use, stimulated possibly by the fact that the production of gold in the Southern Appalachian region of this country was increasing at that time. In 1834 Congress passed an act reducing the contents of the gold coins, so that one ounce of gold became the equivalent of 16 ounces of silver instead of 15, as had been provided by the Act of 1792. The effect of this was to undervalue silver, and that metal now tended to disappear from circulation. This was of inconvenience to the public, chiefly because of the need for coins of

smaller denominations than the dollar—the coins now termed subsidiary silver coins.

The next legislation of any importance on the subject was the Act of 1853, which reduced the weight of the fractional silver coins from 412½ grains to the dollar to 384 grains to the dollar, closed the mint to their coinage on private account, and provided for their coinage on Treasury account. The legal tender quality of these coins was limited to $5, and they were made redeemable on demand at the Treasury. The mints remained open to the free coinage of the silver dollar, but practically no more silver bullion was deposited for coinage. In 1873, in effecting a general revision of the coinage laws, the silver dollar was dropped from the list of United States coins, thus virtually fixing the standard in gold alone. Gold, and gold only, retained the privilege of free coinage.

Free Silver Agitation Begins

Shortly afterward, owing in part to the rapid increase of silver production in this country, and in part to the demonetization of silver by several European countries, the price of silver declined below the 16 to 1 ratio, and agitation at once began for the resumption of silver coinage.

The old relations between the metals hav-

ing been very much unsettled, Congress hesitated to reopen the mint to the free coinage of silver, at 16 to 1, fearing that the effect would be to expel gold from monetary use in this country and fix the standard in silver alone. It compromised upon an experimental measure, which authorized the Secretary of the Treasury to buy a limited quantity of silver monthly and coin it into dollars on government account. This was done with some expectation that the increased demand for silver thus created would raise the price to the former coinage ratio, and that the free coinage of both metals might be then reestablished. This measure was passed by Congress in February, 1878, and became a law over the President's veto.

The same Act provided that the President should invite other countries to participate in an international conference to agree upon a ratio at which all the parties to the understanding would admit gold and silver to free coinage. It was hoped that such an agreement would simplify the problem, but nothing came of the proposal.

Price of Silver Continues Downward

The price of silver continued downward, and in 1890 Congress passed another act, increasing the purchases. This act was passed in pursuance of the purpose of stay-

ing the decline, and ultimately reestablishing the standard in both metals. This act provided that the silver bullion to be acquired should be purchased by the issue of Treasury notes, which were made full legal tender, and it was made the duty of the Secretary of the Treasury to redeem these Treasury notes upon presentation, "in gold or silver coin, it being the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio, or such ratio as may be provided by law."

A brief rally in the price of silver followed this act, but production increased rapidly, and the price soon turned downward and reached lower levels than before. The rapidly increasing amount of silver in the monetary stock had the effect of causing large exports of gold, and threatened to change the actual monetary standard from gold to silver. In 1893 the act requiring purchases of silver was repealed, and the silver question became the leading issue in politics, until settled by the result of the presidential election of 1896.

In that election the proposal to resume the free coinage of silver was defeated and in 1900 a new monetary act was passed, fixing the standard definitely in gold. If the mint had been opened to the free coinage of silver

dollars, or if the Treasury purchases of silver dollars had been continued, it is certain that the standard of value would have been shifted from gold, which has been the ultimate standard since about 1834, to silver, and gold would have passed out of use in our monetary system.

Full Legal Tender

The monetary history briefly sketched above completes the discussion concerning the policy of free coinage for gold alone as an essential of the gold standard. We now come to the consideration of the third requisite of the gold standard, as enumerated at the outset of our discussion; namely, that gold alone shall be "full legal tender."

This means that a creditor shall not be obliged, in the absence of special agreement, to accept anything but gold money in full settlement. The provision is designed to make clear, beyond any chance for argument, that, although other forms of money may be used for convenience, they shall not be forced upon any one who prefers gold instead. Moreover, the purpose is to completely protect the standard and guard against any danger that other forms of money may obscure it or weaken its preeminent position.

The United States, like several other countries, does not fully meet the condition that

nothing but gold shall be full legal tender. Silver dollars, and also United States legal tender notes, originally issued to serve a temporary purpose during the Civil War, are both full legal tender; that is, they can be used, like gold, to pay any sort of debt and to any amount. This condition is explained by the fact that the monetary system of the country is not a consistent whole, completed at one time, but is the outcome of legislation at different times, and frequently the result of a compromise of views, as suggested by the historical outline presented above.

Gold Standard Not Affected

The fact that silver dollars and United States notes are full legal tender does not, however, disturb the validity of our gold standard because it is the policy of the United States, repeatedly declared, to maintain both the silver dollars and United States notes at par with gold, and to avoid increasing the issues of these forms of money beyond the amounts which have been outstanding for many years. As long as these conditions are fulfilled, the gold standard is not displaced. A dollar, strictly speaking, always means the same quantity of the same quality of gold.

The Gold Standard World-wide

In thus maintaining the gold standard we

have maintained our position in a world system. Before the Great War deranged the situation, all the great trading nations had the gold standard, both in law and in fact. That is, they had monetary units whose meaning was determined by a certain quantity of gold, as the following table will indicate:

Countries	Unit	Grains of Fine Gold
United States	Dollar	23.22
Canada	Dollar	23.22
Great Britain	Pound Sterling	113.00
France	Franc	4.48
Germany	Mark	5.53
Belgium	Franc	4.48
Holland	Guilder	9.33
Denmark	Krone	6.22
Norway	Krone	6.22
Sweden	Krone	6.22
Austria-Hungary	Krone	4.70
Italy	Lira	4.48
Switzerland	Franc	4.48
Russia	Ruble	11.94
Japan	Yen	11.57
Argentine	Peso	22.40
Uruguay	Peso	24.01

The fact that the monetary units of all these countries, together with others not listed, consisted in every case of a certain number of grains of gold, gave them a definite relationship to one another. It did not, however, signify that gold itself was in common use in ordinary trade. In other countries, as well as in our own, silver, copper, and paper currency made up the bulk of the money in circulation, except as between coun-

tries. They constituted the subsidiary money which we stated to be the fourth feature of a well-developed monetary system.

All of these other monies passed from hand to hand, not at the value of the substance of which they were made, but on a parity with gold. In consequence, price quotations and the relations between debtor and creditor took on a definite and uniform meaning that was the same for everybody, everywhere, and all the time. Goods priced in any of these currencies were virtually quoted in terms of gold. How these other monies were maintained at a parity with gold can be most simply explained by referring again to our own situation.

Standard and Representative Money

We have in this country gold coins, silver coins, "nickels," copper cents, and seven kinds of paper money: United States notes ("greenbacks"), Treasury notes, national bank notes, Federal reserve bank notes, Federal reserve notes, gold certificates, and silver certificates. Gold money is standard money; all the other forms are subsidiary money.

All these forms of money, except gold itself, are interchangeable directly or indirectly, by law or by established policy of government, with gold coins. In the language of public finance, some of them are directly

convertible or redeemable, while others are made practically so by methods of public policy described below.

Insuring Convertibility

The government undertakes to insure convertibility by always keeping a quantity of gold on hand for the purpose of redeeming other money on demand and by requiring banks which issue paper currency to keep gold on hand for the same purpose. United States notes, Federal reserve notes, and gold certificates are directly redeemable in gold. National bank notes, Federal reserve bank notes, and all coins smaller than the silver dollar, are redeemable on demand in "lawful money," including government notes, and silver dollars as well as gold coin. Silver certificates are redeemable in silver dollars.

There is no definite promise on the part of the government to redeem silver dollars in gold, but by Act of Congress approved March 14, 1900, the Secretary of the Treasury is required to maintain all forms of money on a parity with gold, and it is assumed that any steps necessary to carry out this policy will be taken. Moreover, silver dollars are receivable at par for all taxes and dues payable to the government, and the volume of these payments is so great that this amounts practically to continuous redemption.

Thus all kinds of money other than gold money are kept at a parity with gold money, dollar for dollar. They virtually represent gold money, which explains why they are often called representative money, while gold money is known as standard money. It also explains why gold, and gold only, is considered by many authorities on the money question to have the exclusive right to the title of money, the other so-called monies being merely substitutes.

Essential Features Summarized

The monetary system of the United States, to sum up the main features of the foregoing discussion, comprises four features:

First, the use of a monetary unit, one dollar, for the recording of prices.

Second, the employment of the gold standard; that is, the use of a certain quantity of gold for defining the meaning of the dollar.

Third, the use of gold coins as standard money, evidenced both by their legal tender quality and by their employment in the redemption of other monies.

Fourth, the use of several varieties of subsidiary money, all of which are maintained at par with gold by a system of redemption or exchangeability.

Such are the essential facts about the organization of our monetary system, consid-

ered in its main outlines. But one feature of the system, namely, the nature and use of paper money, is so important as to deserve special treatment on its own account. The present extent to which paper money is used, not only in our own country but more especially in other countries with which we have business relations, gives special significance to the following discussion.

III

Paper Money

Almost all forms of paper money are promises of a government or of a bank to pay a certain sum of standard money on demand. They are acceptable, at their face value, only because people have confidence in the ability of the promisor to keep his promise. This confidence, in turn, depends upon the maintenance of reserves of standard money by the government or by the banks for the purpose of maintaining their ability to meet their promises and to meet them on demand.

Gold Certificates Specially Insured

In the case of some forms of paper money, such as our gold certificates, the validity of

the promise is specially insured. These certificates certify on their face that "there has been deposited in the Treasury of the United States of America —— dollars in gold, payable to the bearer on demand." This means that the government always keeps on hand enough gold, dollar for dollar, to redeem all its gold certificates. These are, in fact, mere "warehouse receipts," issued by the government in exchange, dollar for dollar, for gold coin or gold bullion deposited in the Treasury. He who accepts a gold certificate need have faith only that the government will not divert the gold which it holds to some other purpose than that of redeeming the certificate. Granting the stability and integrity of the government, the certificate becomes a safe and convenient form of money; its advantage over coin consists in the comparative ease with which considerable sums may be stored, carried, and shipped.

"Greenbacks" are Credit Money

United States Treasury notes or "greenbacks," on the other hand, are paper money of very different character. Although they are government promises to pay a certain number of dollars to the bearer on demand, they are not backed dollar for dollar by gold in the Treasury. The United States now has outstanding about $346,000,000 of

these notes, against approximately $150,000,000 of coin held for their redemption. These notes, therefore, are not mere substitutes for coins, dollar for dollar, like gold certificates. They are often said to be credit money, or credit currency, because they are mere *claims* to standard money instead of virtual *representatives* of it, as is the case with the gold certificates above described.

Government notes, *as long as their issue is kept within proper limits,* so that they may be and are kept at par with gold, have the same advantages in convenience over coins as are possessed by gold and silver certificates. They are easy to carry, to store, and to ship. Outside the limits specified, however, the issue of government notes, as of any other form of credit currency, not only affords no advantage to the community but involves dangers verging on genuine economic disaster.

Government Issues and the Price System

Money, and particularly paper money, is primarily a facility of trade, and issues should be solely for the convenience of trade. When currency is issued arbitrarily, as for the purpose of financing expenditures of the Government, a wholly different motive governs, and the relationship between the needs of trade and the volume of currency is lost.

Such issues are not retired by the natural course of trade; the volume outstanding increases as issues are continued, and the consequences show themselves as a disturbing influence upon the business situation.

If it could be conceded that an amount of gold equal to the amount of government notes thus issued would be simultaneously exported, so that the amount of money in circulation would be unchanged, it might be admitted that no ill effects would result so long as the increasing amount of paper currency remained at par with gold. But such a readjustment does not readily take place, and the actual result is that the relationship between the volume of money and the volume of trade is disturbed. This disturbance affects prices, and through them, all the delicate relationships in the business world.

The Bank of England Notes

Approximately £18,000,000 of Bank of England note issues are based upon government bonds, but although these notes were not originally related to the volume of trade, they have been in circulation a long time and it may be presumed that the total stock of money in the country has been adjusted to their presence.

In like manner it may be assumed that the $346,000,000 of United States legal

tender notes, which have been outstanding since the Civil War, are a part of the permanent volume of currency required to transact current business, and no longer constitute an intruding and disturbing factor. When such a state of equilibrium has been reached, it may be granted that a moderate amount of government notes may be carried in the circulation without disturbing effects.

Disturbance by Note Issues

The fact is, however, that the United States legal tender notes were not thrust into the monetary system of this country without a very great disturbance at the time, and they have been a disturbing factor from time to time almost to the present day.

In the first place, they forced the suspension of gold payments and divorced the price system of the United States from the gold standard, with the result that the war cost the Treasury a very much larger sum than would have been the case if the expenditures had been upon a gold basis. It is probable that, as a result of issuing currency notes, the Treasury actually borrowed more money at interest during the Civil War than it would have been obliged to borrow if there had been no issues of government notes.

Moreover, the fluctuating value of the notes was a serious detriment to business

for many years, and it was especially injurious to the producers and consumers of products entering into foreign trade. These notes have been an element of uncertainty and weakness in nearly every financial crisis, and as such have been costly to the business interests of the country. And finally, the Treasury has been under the necessity, not only of maintaining considerable gold reserves against them, but of replenishing those reserves repeatedly by the sale of its interest-bearing bonds. When all these facts are taken into account it will be seen that the circulating notes of the United States government have not accomplished any economy for it or for the public. If justified at all, they were justified by the plea of necessity and nothing else, and that was the plea offered for them when they were issued.

Fluctuations of "Greenbacks"

The "greenbacks" began to depreciate soon after the issues began. In 1863, $1 in gold would purchase $1.45 in greenbacks; in 1864, it would purchase $2.03 in greenbacks; in 1868, $1.40 in greenbacks; in 1875, $1.15 in greenbacks; and it was not until 1879, when redemption was resumed, that the greenback reached parity with gold.

The advocates of paper money have explained these fluctuations by saying that it

was really gold that did the fluctuating, but the relations between gold and commodities outside of the United States were comparatively stable, while in the United States the relations between the paper money and commodities followed the fluctuations between the paper money and gold.

Lessons of Experience

The lessons of experience show that once a country has started upon the course of issuing irredeemable paper money, the arguments for continuing the course are almost irresistible. No matter how great the issues may be they never satisfy the craving for more. Money is just as "tight" or hard to get when the currency has been cheapened almost to the point of being worthless as it was before depreciation began, because the amount required to transact a given volume of business is correspondingly increased.

As we have seen recently in Germany and Russia, paying government debts by issues of paper money is following the line of least resistance without regard to consequences.

Why should a government place any limit upon its expenditures, or undertake to levy taxes, if it can pay its way simply by printing so-called *fiat* money? The result of overissue is that currency declines in purchasing power, fresh issues depreciating the value of

all that is outstanding. This happens in spite of the fact that *fiat* money is made full legal tender inside the country and cannot be refused when offered in payment of a domestic debt. It will pay a debt already contracted, because the creditor cannot help himself, but it will not make new purchases without its depreciation being taken into account, nor can new debts be contracted without similar allowance. In the end the paper money may become entirely worthless, so that business reverts to "barter" with all the disadvantages of the latter.

Restoring Depreciated Currency

There are numerous cases where a country's paper currency, once depreciated, never has been restored to the former parity with gold. It is agreed in such cases that injustice was done to all creditors to whom sums were owing when the depreciation occurred. The policy of accepting the depreciation as permanent has been justified on the ground that, with the lapse of time, a larger portion of the outstanding indebtedness had been contracted after the depreciation set in than had been contracted before, and therefore, that instead of going through the painful and difficult process of raising the value of the currency, the minimum of injustice would be inflicted by reducing the amount of metal in

the standard coins. This course probably will be necessary in the case of some of the European countries whose currencies are sadly depreciated.

The United States, on the other hand, has made it a point of honor to keep the promise carried by its paper money. After the Civil War, on January 1, 1879, the greenbacks were brought to a parity with gold and by the monetary act of 1900, provisions were adopted to firmly maintain them in this position. First, the amount which can be outstanding is rigidly limited by law to $346,681,016. Second, a gold reserve, amounting to $150,000,000, has been established for the purpose of redeeming them. Finally, the Secretary of the Treasury is instructed by law to replenish the gold reserve, when depleted, by the sale either of bonds or of one-year gold notes. The passage of the law of 1900, which contains these provisions, gave the final touch in this country to the establishment of the gold standard.

The forms of credit money that have so far been described are issued by the government. There are other forms, already mentioned, which are issued by the banks. These include National bank notes, Federal reserve bank notes, and Federal reserve notes. Like government notes, they can be kept at par with gold only by the maintenance of gold re-

serves, which implies that there must be limits to the quantity issued. They can best be understood, however, after we have gone into the subject of banking in the next study-unit.

IV

Criticisms of the Gold Standard

The gold standard is almost universally conceded to be the best monetary standard that any country has ever used. It is not, however, a perfect one, and we shall now consider some of the criticisms that have been made against it, and attempt to weigh these criticisms.

Is Gold Too Valuable for Money?

The first criticism of the gold standard is that gold is too valuable for use as money. By using some cheaper substance for money, critics claim, the world would be put to less trouble in mining gold and would consequently have more labor available for doing other things. This criticism has had no real point for a long time, for the reason that the bulk of the circulating medium does not consist of gold at all, but of silver, copper, and paper, which are much cheaper, to say nothing of bank deposits, which are cheap-

est of all. Furthermore, one of the reasons why gold is preferred is that it affords high values in small bulk, thus accomplishing economy in transportation costs.

A "Necessity" for the Standard

Then there are those who take an exactly opposite position and insist that gold is not suitable for money because it has no real value of its own, that it does not minister to any actual human need, that society could do without it far better than it could do without the products which serve for food, clothing, and the like. But after this is admitted it does not prove the contention that gold is not suitable for the standard of value. If society had to choose between doing without the necessaries mentioned and doing without gold, it doubtless would choose to dispense with the latter; but it does not have to do without either.

A great many things that are not primary necessities are in constant demand and year after year command prices in the public market that are quite as stable as the prices of wheat, cotton, or iron. Tobacco is not one of the necessities of life, but from one year to another tobacco is as sure of a market and is as stable in price as any of the grains. Fine pictures, good music, good acting, are not primary necessities, but the people who can

supply them always command high pay as compared with those who produce corn and cotton. The world does not live by necessaries alone, or deal in necessaries alone, or value nothing but necessaries, and it is not likely to be reduced to a state where such is the case. The fact that gold is not one of the necessaries does not disqualify it for use as the monetary standard, or disprove the judgment of mankind as to its value.

Bankers and the Gold Supply

A third criticism of the gold standard is based on the assumption that it puts tremendous power in the hands of the bankers, and that they abuse this power. The assertion is made that the supply of gold is "controlled" by the bankers and manipulated so as to make good times and bad times at their will and for their profit. This idea is a pure delusion, not only without evidence in its support, but wholly impracticable. There is no profit in hoarding gold. The owners of gold mines wish to get the gold out of them as rapidly as they can do so profitably, and bankers carry no larger stocks of gold than are necessary for the safe conduct of their business.

The holdings of gold by purely private institutions, excluding the central banks, such as the reserve banks of the United States, are

very small. The estimated stock of gold in the United States in the spring of 1922 was about $3,600,000,000, of which all the national banks held only about $40,000,000, and the state banks probably less. Private bankers held an insignificant amount, as they usually carry their cash reserves in other banks at interest. The twelve reserve banks, according to the statement of March 15, 1922, owned approximately $3,000,000,000 in gold. The remainder of the country's gold stock was in the government treasury, in state banks, private banks, and personal holdings. The reserve bank holdings are in sight all the time, and subject to use on the same terms by everybody. Anyone can get gold by presenting other money for it. The gold stocks of other countries are similarly concentrated in the central banks, always in sight and subject in most countries, as in our own, to government supervision, with government officials participating in the bank management.

Instability of Prices

A fourth criticism of the gold standard is more substantial. It is recognized by all students of the money question and has even made some appeal to practical men of affairs. It is based on the proposition that the gold standard is not an altogether stable stand-

ard of value; or, in other words, that maintenance of the gold standard does not insure complete stability in the general level of prices.

Upward and downward swings in the general level of prices, as already noted, are equivalent to fluctuations in the value of money. Inasmuch as nearly everybody's income is in the form of money, such changes affect economic relationships in a far-reaching manner, and unless there are compensating economic changes, affecting the real costs of production as reckoned in terms of human effort, they are clearly undesirable. Especially undesirable are price-changes resulting from causes which act directly upon the standard of value itself.

The ill effects are most serious in the relations between borrowers and lenders, over terms of years. Since money is used as a standard of deferred payments, its debt-paying power remains the same. The whole system of credit and investments is built upon contracts drawn in terms of money, and a change in the purchasing power of money may vitally affect the real value of payments in discharge of all outstanding contracts.

The fact that the changes are unforeseen and largely unpredictable makes it impossible to cover such changes by provisions in the contract.

It is not uncommon for railroad bonds to be issued running over periods of from fifty to one hundred years. It is evident that a persistent change in the value of money over such a period, even though gradual, may seriously affect the value of the principal.

Effects of the War

During and since the late war the effects of changes in the price level upon the economic positions of different groups of people, and particularly upon the relations of debtor and creditor, have been strikingly manifested, because the changes have taken place with great rapidity. Let us suppose the case of a farmer who, counting upon a continuance of a price of say $2 per bushel for wheat, bought a farm, paying the advanced prices which farm land would bring under these conditions, and giving his notes for most of the purchase price, secured by mortgage. At the time this is written the price of wheat has fallen to about $1 per bushel. If this situation should be permanent, and the prices of farm products and farm lands should generally decline to the pre-war level, this buyer very likely would be unable to meet his further payments, and might be obliged to forfeit the payments he had made, and relinquish the farm.

This is a case of rapid price change, due

in part to extraordinary industrial conditions, and in part to an inflation of credit which depreciated the value of money. A decline in the price of farm products resulting from the introduction of improved machinery, like the self-binding harvester, would present a different situation, inasmuch as the producers would enjoy compensating benefits.

Cases of Fixed Incomes

On the other hand, consider the situation of a farmer, who, just before the outbreak of the war, after a lifetime of hard labor, had retired, selling his farm, and for the sake of security, placing the proceeds in low-rate, interest-bearing securities. At the level of prices before the war, he had calculated that the income would support him comfortably, but with the rise of prices caused by the war it would not yield more than one-half the expected purchasing power. In such cases a great injustice would be done if by reason of the credit inflation occasioned by the war, prices generally remained at the war-level.

The entire body of people who at the beginning of the war were holders of obligations payable in terms of money are in the position of the last named individual. The aggregate of such outstanding obligations was very large, including all public, corpor-

ate, and individual indebtedness, an always increasing sum. As a class the holders were persons who had sought to avoid risks and had accepted comparatively small returns in order to be sure of safe investments. Savings banks and insurance companies were large holders, in trust for depositors and policy-holders. Similarly affected, in a degree, were many salaried people, notably school-teachers and other public employees, whose pay lagged behind the rise of prices.

The most deplorable effects from this wartime depreciation of money are to be seen in some of the countries of Europe, where the entire body of indebtedness outstanding at the beginning of the war has been practically extinguished.

Entire Credit System Affected

The evil effects of such a loss of savings extend beyond the injury and injustice to the individual, for they affect the entire credit system. With a steadily depreciating currency, credit in terms of money tends to disappear, the incentive to accumulate savings is weakened, and the advantages to the community of having a fund of loanable capital will soon be lost.

On the other hand, steadily falling commodity prices, resulting from changes on the side of the standard of value, will increase

the burden of indebtedness, have a tendency to discourage enterprise, and retard industrial progress.

The hardships resulting from a sudden swing of prices in one direction never can be fully compensated by a swing in the other direction, and attempts to relieve or compensate the parties suffering from such changes by altering the standard of value are not as a rule to be favored. They are likely not only to inflict new injuries on many individuals, but also to involve the entire business situation in uncertainty and confusion, to the general disadvantage. The best outcome will be obtained by allowing the natural economic developments to take place.

War Prices and Monetary Law

The rise of prices during the war was not brought about by any change of monetary law. The persons who made their plans and entered into contracts under normal conditions and on the basis of the existing monetary law had no degree of responsibility for the upheaval that followed, and had a right to assume that the monetary law would remain unchanged, and that the price-level would be such as naturally would obtain under it. The outbreak of war and the consequent rise of prices were developments which nobody contemplated.

On the other hand, the individuals who made plans and entered into contracts on the basis of the price-level which resulted from the war, had not the same right to count on permanency of conditions. The monetary law was unchanged; the monetary standard was the same as before the war; all history teaches that war-prices are ephemeral and cannot be relied upon; public officials, financial authorities, publicists and common newspaper utterances, were giving constant warning that the price situation was abnormal and precarious. Despite these warnings, either through ignorance or because they were willing to take the risk for the prospect of gains, many persons voluntarily involved themselves in new indebtedness, which in the event of a fall of prices inevitably would become burdensome. That they did so is very much to be regretted, but claims that the monetary standard should be altered for their relief are not as strong as the claims of those who have counted upon the maintenance of the existing standard.

The war inflicted a great many irreparable losses upon innocent people and losses arising from the violent fluctuations in prices are among them. Any attempt to remedy them in the United States by alteration of the monetary standard would be without any approximation to accuracy, and would in the

end amount to nothing more than an arbitrary taking from some persons to make good the losses of others.

This reasoning does not apply with the same force in countries where great quantities of paper currency have been put into circulation, and where the aggregate of governmental indebtedness is so great that a reorganization of the monetary system is plainly the only way of restoring sound financial and social conditions. In the past, several countries which for long periods had been accustomed to the use of depreciated currencies, with the result that business relations generally were adjusted to them, have chosen to reduce the nominal unit of value as a step toward such resumption of gold payments as would stabilize the existing currency. The acceptance of conditions long-established must be regarded in a different light from a hasty alteration of monetary laws with intent to equalize the losses incidental to the convulsions of war time.

Labor as the Ultimate Standard

It is usually agreed in rather vague terms that the ultimate measure of value, or ideal standard, by which material standards are to be tested, is labor, i.e., a unit of human effort. It is roughly assumed that a fair basis for the exchange of commodities is the

amount of labor or effort required to produce them. This ideal measure has been called a "unit of energy"—presumably human energy.

In a broad and fundamental sense, this theory is sound, but there is so much variation in the quality and value of efforts put forth by different individuals, that the idea of a standard of effort does not carry us very far in practical affairs. It is necessary to evolve something more tangible, and so we come to commodity standards, which in a general way, represent the same idea. They are composed of concrete, valuable results of labor, instead of labor itself, the value of which is immeasurable except by results.

The chief criticism of the gold standard relates to its variations over a term of years, but no commodity standard is stable with reference to human effort over a term of years, because the conditions of production are constantly changing. It must be understood therefore that "stability" as applied to any material standard with reference to an ideal unit of effort or energy is used only in a comparative sense. Absolute stability is unobtainable.

It is generally assumed that justice will be done over periods of time if the money in which a debtor makes payment has the same command over a general list of com-

modities that it had when the debt was created, but if the commodities are produced with less labor at the end of the period than at the beginning, the debtor will gain by that fact, while if they represent more labor his task is harder. It appears, therefore, that there may be a considerable divergence between even a "multiple commodity" standard and the ideal standard, representing the average unit of human effort.

A Notable Instance

The most notable period of falling prices in recent years, that from about 1873 to 1896—during which the decline was commonly attributed to the gold standard—was a period of revolutionary development in industry and transportation, and of price-changes directly related thereto. It was a period in which price declines were indicated by the elimination of labor from industrial processes, and a corresponding increase in volume of production. We shall refer to the price-movement of this period in another place, but touch upon it here only to suggest consideration of the various effects that would have resulted if the volume of money had been regulated during that period with a view to maintaining a uniform average price-level for all commodities.

The point upon which interest centers is

the distribution of the benefits of industrial progress. In the long run they are bound to be widely distributed, but there are immediate social effects of importance. Undoubtedly the creditor class gained during the period named by receiving in discharge of debts money of greater purchasing power than it had when the debts were contracted, but on the other hand, there is reason to believe that the greater purchasing power was mainly if not wholly due to reduction of industrial costs by labor-saving methods. When prices fall to correspond with labor costs, the benefits of industrial progress are given directly to consumers, which is the broadest distribution possibly attainable.

It appears from a review of this much-discussed period that the course of prices under the gold standard corresponded more closely to what it would have been under a labor standard than to what it would have been under a multiple commodity standard, and it is an open question whether the general interest was not well-served by this fact.

Other Influences Upon Prices

Serious and sudden changes in the general level of prices are caused by various influences, notably by fluctuations in the use of bank credit, and by movements in foreign trade and foreign exchange. We shall con-

sider these factors in subsequent study-units.

The criticisms of the gold standard which we have been considering lead into abstruse discussion which we cannot follow here beyond indicating the main points. The essential thing to realize is that this standard has been adopted by the business world for substantial and practical reasons, based upon experience. We shall therefore devote the final section of this study-unit to a brief discussion of this experience.

V

Merits of the Gold Standard

Before the war all countries which stood ready to redeem their internal currencies in gold were doing business on the same basis. They had a common language of values. Money was loaned, securities were bought and sold, engagements were entered into across international boundaries as readily as between New York and San Francisco, the risk of exchange fluctuations at the maximum being reduced to the cost of shipping gold.

The World One Community

In short, the influence of the common standard of value was toward making the world

one community in finance, in industry, and in trade. It was harmonious with the influence of improved methods of communication and of transportation, a common language, and common weights and measures.

The advantages of this relationship in simplicity and economy were very great. The price quotations of all countries bore definite relations to one another. The dealers of every country could readily calculate in terms of their own money the prices that commodities were bringing in every other country. Contracts for future delivery could be safely made in other countries. A Chicago meat packer could sell an invoice of lard for delivery in Hamburg at a certain price in "marks" and know what the marks would be worth when he received them sixty days or six months later. He could, if he wished, receive his pay in gold marks, have the coins shipped to this country, deposited at the United States Assay Office in New York, and converted into gold coins of the United States. The common gold standard practically eliminated the risk of exchange fluctuations.

Necessity of a Common Standard

It is impossible to have this international relationship of values without a common standard. In certain parts of this country in recent years considerable annoyance has

arisen from having two standards of time; but although there were two standards they maintained fixed relations, being always just one hour apart. How much worse would it be if they constantly fluctuated in relation to each other! If twelve o'clock is to mean the same thing to everybody there must be one standard of time, and every community must keep its time-pieces in harmony with that standard. So also must there be uniformity with regard to the monetary standard.

All the countries to which we have referred had different paper currencies, printed in the different languages and naming many different monetary units, yet they had a common unit in the grain of gold, and by reason of their fixed relations to this they all had practically fixed relations to one another. The gold coins of any of these countries may be shipped to any other of these countries and recoined into the money of that country, practically without loss. They have practically the same purchasing value anywhere and under any name, transportation charges allowed for.

Why Gold is Chosen

It may be said that these arguments in behalf of a common standard of value apply to any standard, and why should gold be chosen? The answer is that gold has been the deliberate choice of the business world, a choice

reached by a gradual process of evolution and elimination. Experience has demonstrated that it is the most economical and generally satisfactory commodity for the purpose. It has superseded all the other commodities by common choice.

The gold standard has a great advantage over the complicated systems sometimes proposed, in simplicity, and in being free from arbitrary control. The supply of gold comes from the mines and everybody is free to dig for it. The government does nothing but make the coins for anybody who brings bullion to the mint. Their value depends upon what will be given for them in the markets. This freedom from official authority, and the uncertainty that always attaches to actions by such authority, is of great practical value.

The high value of gold in proportion to its bulk, together with the fact that it is practically indestructible, makes it particularly suitable for use in effecting international settlements. Its uniformity—the fact that every bar of pure gold is just like every other bar—and that, even when alloyed, the amount of pure metal can be accurately determined by assay, is also an important factor.

Although the production of gold varies from time to time, the variation from one

year to the next is always slight, and the production of any year is so small in relation to the total accumulations of gold in existence, that annual fluctuations are negligible in effect.

The Multiple Standard

We have referred to the proposal for a multiple or composite standard, the idea of which is to attach the currency definitely to a unit which would represent the average value of a list of staple commodities. It is argued that a standard of value made up of many commodities would have greater stability in relation to labor, and as a measure of value in long-term contracts, than would any single commodity. There is some force in the argument, but it is not clear that the gains would be important even if the system proved practicable in operation, and it is evident that the difficulties attending its international introduction and operation would be very great.

Let it be supposed, for instance, that we had the multiple standard and that the "dollar" represented a certain percentage of the value of given amounts of wheat, cotton, beef, mutton, baled hay, sugar, salt, butter, canned tomatoes, evaporated milk, bleached sheetings, hemlock leather, pig-iron, copper, lumber, and as many other things as might be

taken from the list of about 400 commodities which are the basis of the percentage tables of the Bureau of Labor Statistics. If the system of redemption was maintained, the currency would be subject to redemption in these commodities, in their due proportions, and the mere mention of redemption suggests difficulties.

Such sums as $5,000,000 or $10,000,000 in gold take up but little room in an ocean liner, but $10,000,000 worth of miscellaneous commodities would require a fleet of forty or fifty first-class ships. The transportation charges, and costs of loading, unloading, and storage would be a serious tax upon commerce. Some of the staple commodities, furthermore, are subject to deterioration, particularly upon passing through the tropics. They are all wanted for consumption ultimately, but might not be wanted in the countries to which payments are due.

It is theoretically argued that redemption is unnecessary, for the reason that the paper currency might be kept of approximately uniform value by varying the amount outstanding, but this proposal also suggests numerous difficulties.

There would be needed an elaborate organization for ascertaining prices and controlling the volume of currency. Moreover,